

ABSTRACT

The invention is a process for reducing variations in CD from wafer to wafer. It begins by increasing all line widths in the original pattern data file by a fixed amount that is sufficient to ensure that all lines will be wider than the lowest acceptable CD value. Using a reticle generated from this modified data file, the pattern is formed in photoresist and the resulting CD value is determined. If this turns out be outside (above) the acceptable CD range, the amount of deviation from the ideal CD value is determined and fed into suitable software that calculates the control parameters (usually time) for an ashing routine. After ashing, the lines will have been reduced in width by the amount necessary to obtain the correct CD. A fringe benefit of this trimming process is that edge roughness of the photoresist lines is reduced and line feet are removed.